

Amendments to the Specification

Please amend the specification as follows:

Please replace the paragraph on page 2, lines 2-4, with the following:

According to an embodiment of the present invention, an information providing apparatus for a vehicle includes: an operation part configured to provide a contact possibility of the vehicle contacting with an object that is present in front of the vehicle according to relative motion between the vehicle and the object; an information providing unit configured to provide contact possibility information by applying a negative acceleration to the vehicle, the negative acceleration being produced according to a correction value that is set by the information providing unit according to the contact possibility and is applied to at least one of the driving force and the braking force of the vehicle; and a controller configured to change the correction value according to a speed of the vehicle. ~~In consideration of this situation, the present invention provides a warning apparatus for a vehicle capable of effectively providing the driver with a contact possibility warning without annoying the driver.~~

Please replace the paragraph beginning on page 9, line 26, with the following rewritten paragraph:

In step S6, the primary controller 5 determines a contact possibility by calculating an absolute collision time (first ~~second~~ collision time) THW by dividing the distance X between vehicles (an object-to-object distance) and the object by the own vehicle speed V_h according to the following expression (5), as well as calculating a relative collision time (second ~~first~~ collision time) TTC by dividing the distance X by the relative speed V_r (or ΔV) according to the following expression (6).

Please replace the paragraph beginning on page 16, line 25, with the following rewritten paragraph:

Then, the drive control system employs the absolute collision time (first ~~second~~ collision time) THW and absolute collision time threshold THW_Th of the object having the minimum absolute collision time THW and finds a first counter force $F_{_THW}$ serving as a

correction value. Further, the system employs the relative collision time (second ~~first~~ collision time) TTC and relative collision time threshold TTC_Th of the object having the minimum relative collision time TTC and finds a second counter force F_TTC serving as a correction value (step S9).

Please replace the paragraph beginning on page 22, line 15, with the following rewritten paragraph:

The absolute collision time threshold THW_Th is related to the length L_THW of the virtual spring 501 through the expression (7) and is reflected on the timing of a contact possibility warning made by a braking force generated by the first counter force F_THW . The absolute collision time control gain k_THW is the elastic coefficient of the virtual spring 501, and therefore, is reflected on the size of the first counter force F_THW through the expression (8). The relative collision time threshold TTC_Th is related to the length L_TTC of the virtual spring 502 through the expression (9) and is reflected on the timing of a contact possibility made by a braking force generated according to the second counter force F_TTC . The relative collision time control gain k_TTC is the elastic coefficient of the virtual spring 502, and therefore, is reflected on the size of the second counter force F_TTC through the expression (10) (9).

Please replace the paragraph beginning on page 27, line 7, with the following rewritten paragraph:

The embodiments mentioned above calculate a correction value Fc by setting a virtual spring in front of the own vehicle. This does not limit the present invention. Parameters that are functions of a object-to-object distance may be calculated with the use of other techniques. In the explanations of the embodiments mentioned above, the process of step S6 of Fig. 9 carried out by the primary controller 5 realizes a relative collision time calculator to calculate a relative collision time (a second ~~first~~ collision time) by dividing the distance between the own vehicle and an object that is present in front of the own vehicle by a relative speed between the own vehicle and the front object. The processes of steps S1, S2, and S4 to S7 of Fig. 9 carried out by the primary controller 5, the radar 30, and the object detecting

processor 2 realize a contact possibility detector to detect a possibility of the own vehicle contacting the front object according to the relative collision time calculated by the relative collision time calculator. Namely, the relative collision time calculator and contact possibility detector realize an operation unit to carry out an operation of providing a contact possibility of the own vehicle contacting with the front object according to relative motion between the own vehicle and the front object. The processes of steps S9 and S10 of Fig. 9 carried out by the primary controller 5 realize a first part of a warning unit that provides a contact possibility warning by changing at least one of driving torque and braking torque according to the contact possibility detected by the contact possibility detector and by applying a braking force corresponding to the relative collision time to the own vehicle. The processes of steps S22 and S23 of Fig. 12 (the process of step S8 of Fig. 9) carried out by the primary controller 5 realize a controller to increase the braking force corresponding to the relative collision time as the speed of the own vehicle increases.

Please replace the paragraph beginning on page 27, line 29, with the following rewritten paragraph:

The process of step S6 of Fig. 9 carried out by the primary controller 5 realizes an absolute collision time calculator to calculate an absolute collision time (a first ~~second~~ collision time) by dividing the distance between the own vehicle and an object that is present in front of the own vehicle by the speed of the own vehicle. The processes of steps S1, S2, and S4 to S7 of Fig. 9 carried out by the primary controller 5, the radar 30, and the object detecting processor 2 realize a contact possibility detector to detect the possibility of the own vehicle contacting with the front object according to the absolute collision time calculated by the absolute collision time calculator. The collision time calculator and contact possibility detector realize an operation unit to carry out an operation of providing a contact possibility of the own vehicle contacting the front object. The processes of steps S9 and S10 of Fig. 9 carried out by the primary controller 5 realize a second part of the warning unit that provides a contact possibility warning by changing at least one of driving torque and braking torque according to the contact possibility detected by the contact possibility detector and by applying a braking force corresponding to the absolute collision time to the own vehicle. The

processes of steps S22 and S23 of Fig. 12 (the process of step S8 of Fig. 9) carried out by the primary controller 5 realize a controller to reduce the braking force corresponding to the absolute collision time as the speed of the own vehicle increases.